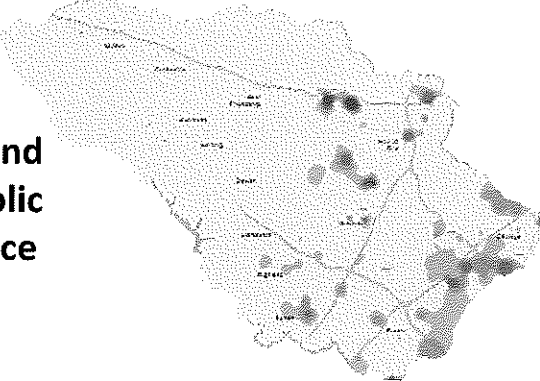
**Howard
County** | Public
School
System

***Presentation to the
APFO Task Force***

**School Planning and
the Adequate Public
Facilities Ordinance**

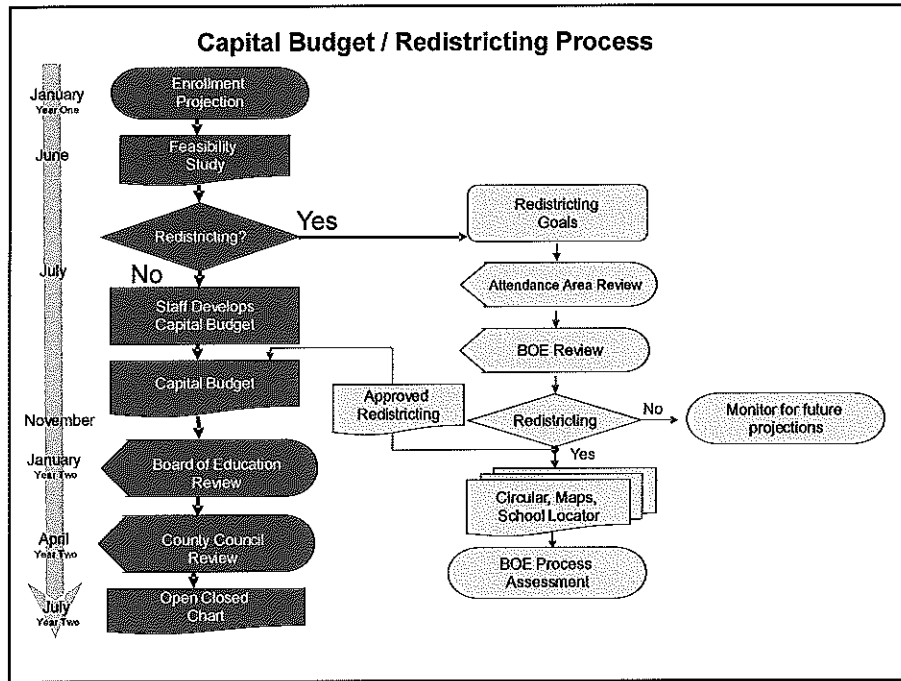
July 15, 2015



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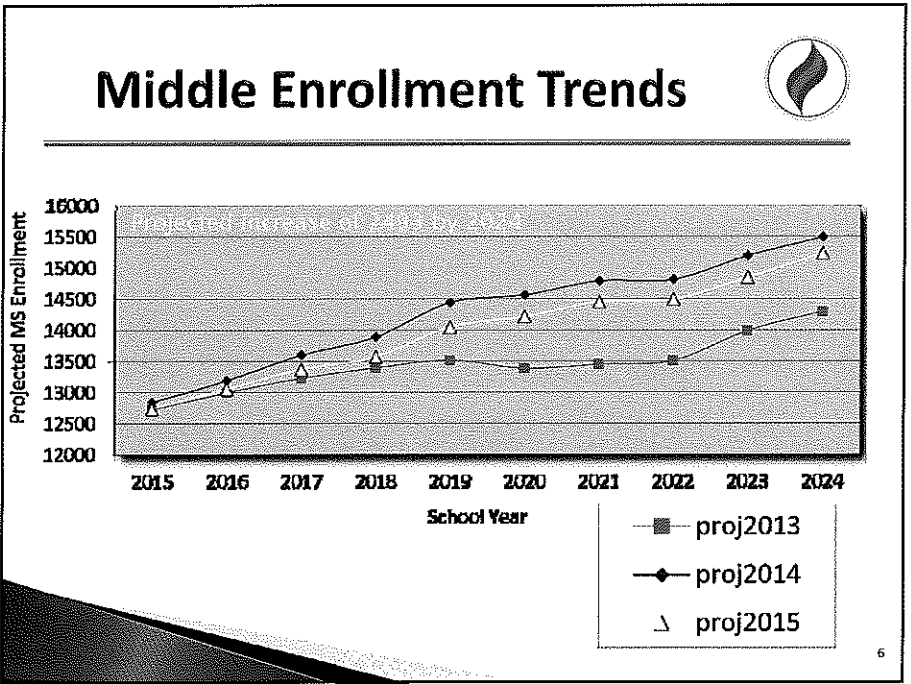
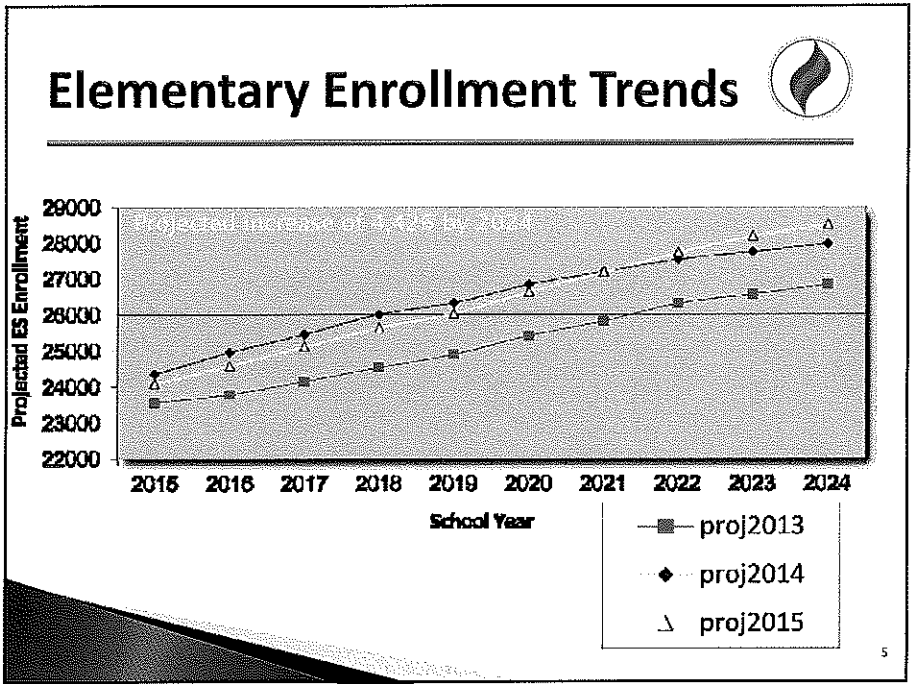
Overview

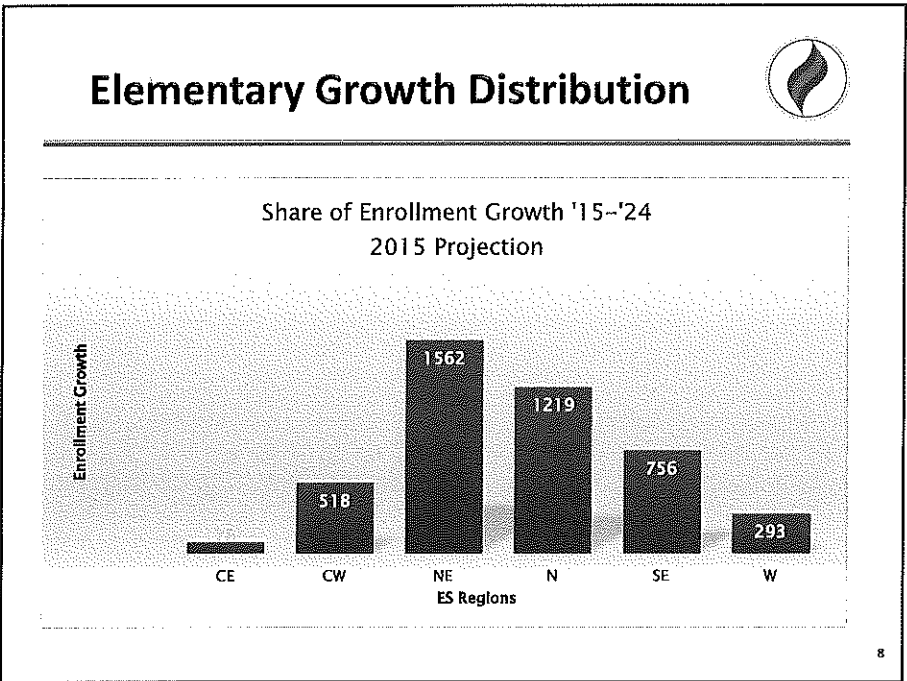
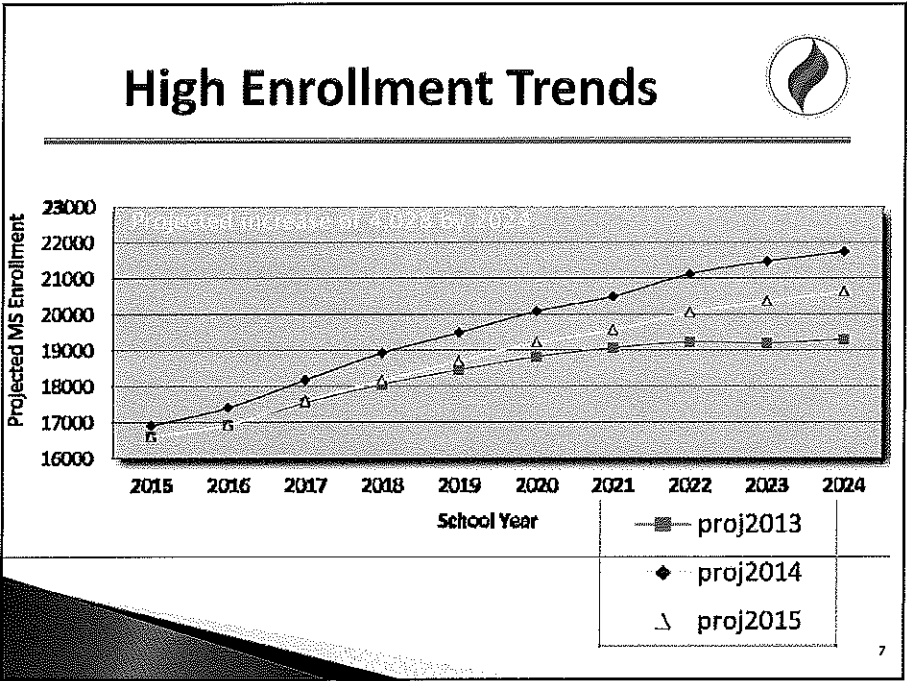
- ▶ Feasibility Study
 - Where is growth and what are trends?
 - Annual planning document
 - Provides new enrollment projection
 - Adjustments and additions to capital improvement program (CIP) and Long Range Master Plan.
 - Considers redistricting plans
 - Considers strategy for 2016-2025 period
 - Follows Policy 6010
- ▶ New school construction
- ▶ Redistricting process
- ▶ School Planning and APFO
 - The open/closed schools chart
 - How are student projections made



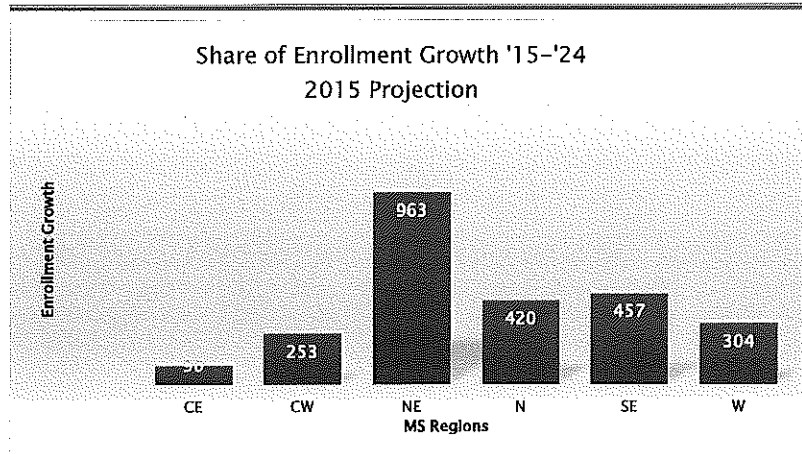
Feasibility Study

www.hcpss.org/school-planning/



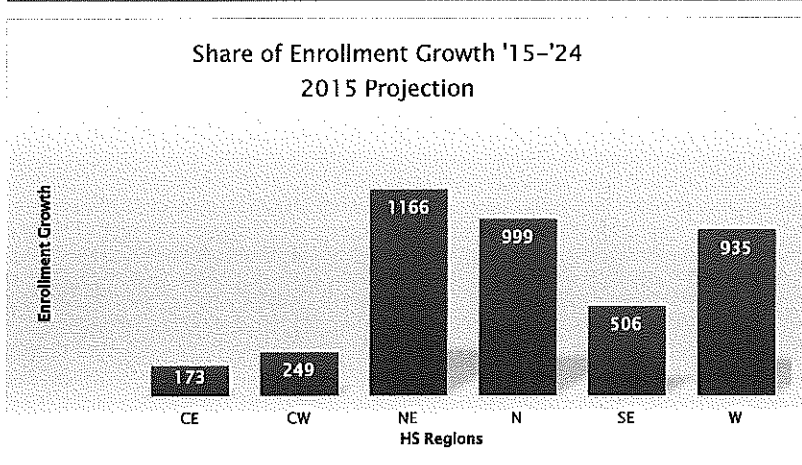


Middle Growth Distribution



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High Growth Distribution



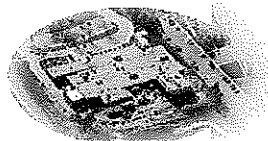
10

Capacity Utilization Trends



	Proj. '15 Enrollment	Capacity '15	Utilization '15	Proj. '24 Enrollment	Capacity '24	Utilization '24
ES	24,085	24,799	97.1%	28,511	26,556	107.4%
MS	12,734	13,086	97.3%	15,227	13,632	111.7%
HS	16,611	17,146	96.9%	20,639	17,146	120.4%

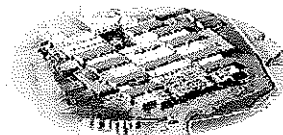
11



LWES



WLMS



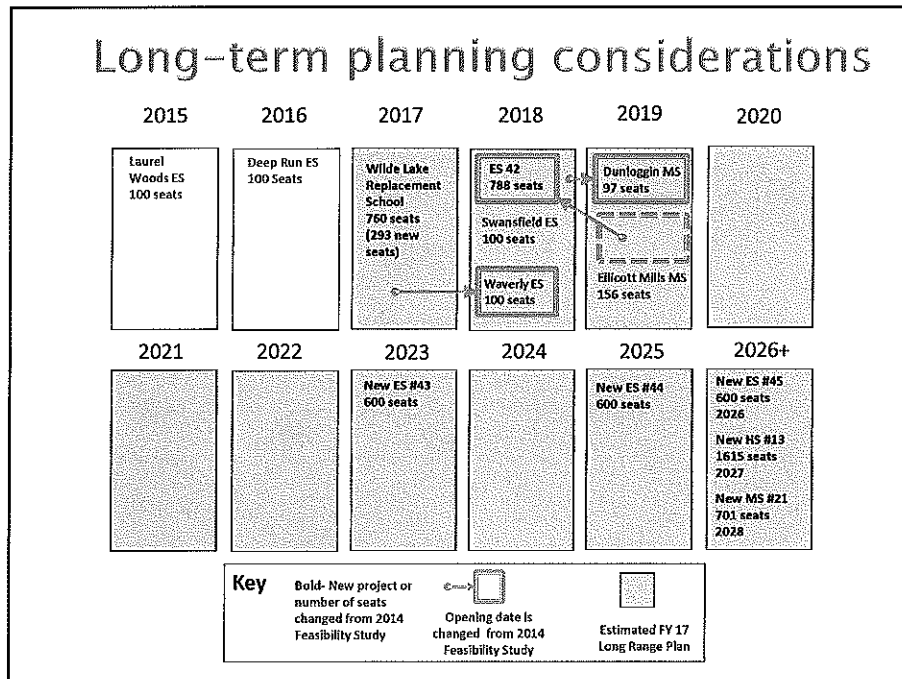
DRES

School Construction

www.hcpss.org/school-planning/

<http://www.hcpss.org/school-planning/construction/>

<http://www.hcpss.org/about-us/budgets/capital-budget/>



Capacity

www.hcpss.org/school-planning/

HCPSS Capacity Calculations

- Elementary school capacity: Product of Board-approved student-to-teacher ratio and the number of teaching stations
- Middle school capacity: 95% of the product of the Board-approved student-to-teacher ratio and the number of teaching stations
- High schools: 80% or 85% of the product of the Board-approved student-to-teacher ratio and the number of teaching stations

Why is State Capacity Different?

- State uses slightly different student teacher ratios.
- HCPSS excludes PreK and Special Education classrooms in the general education capacity calculation.
 - Regional program space subtracted from capacity
 - Pull out rooms are not classroom capacity
- State does not update room use annually. Room use and the purpose of the room only assessed as needed with capital projects.
- The state accepts smaller minimum square footage for classrooms.
- See back of hand out for details

Do Relocatable Classrooms Count?



APFO text: "Basis of chart. The basis of the open/closed chart is the assumptions used by the Department of Education in predicting enrollment, such as school capacity, current enrollment, demographic and growth trends, and the housing unit allocation chart."

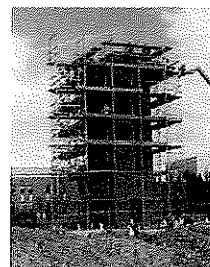


- ▶ BOE Policy: "Stand-alone-relocatable/modular units are for the short term and are not included in capacity calculations."

Elementary Planning Considerations

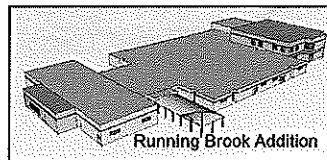
Eastern Regions

- Land acquisition
 - Eastern part of the county
 - Acquire site for high school site (paired with one other school)
- Plan for ES 43/44 in Southeast
- Consider interim program changes to open ES capacity
- ES 42 opens in 2018
 - Redistricting in 2017
 - Appx. 700 students
 - Multi-level improve feeds



Elementary Planning Considerations

- Columbia West
 - Interim use of new capacity at Swansfield
 - Redistricting could occur in 2017
 - Appx. 450 students
 - Plan for Columbia Town Center ES to open in 2028



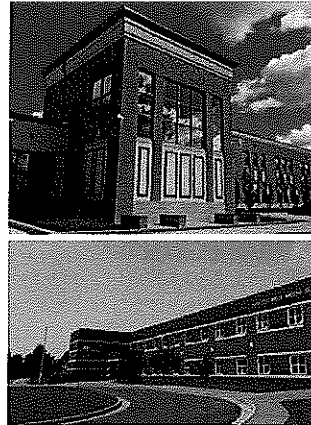
Elementary Planning Considerations

- Northern and Western Regions
 - Redistricting to relieve overcrowding at Manor Woods ES
 - Addition at Waverly ES can maintain target capacity utilization in region until 2020
 - Consider West Friendship and Bushy Park capacity
 - Redistricting could occur in 2017
 - Appx 800 students.
 - Obtain a Turf Valley school site for long term needs



Middle School Planning Considerations

- Multi-level redistricting in 2017 for 2018 to align feeds.
- Feasible redistricting could bring more schools into target utilization
- Acquire site in land bank for MS #21



High School Planning Considerations

- Continue to evaluate long term plan.
- Consider program adjustments to balance capacity.
- Feasible redistricting could bring more schools into target utilization
- Acquire site in land bank for HS #13



Redistricting Process

<http://www.hcpss.org/school-planning/redistricting-faqs/>

Typical Redistricting Project

- **Winter-Spring**
 - Staff prepares enrollment projection
 - Advertisement for volunteers to participate on Attendance Area Committee.
- **June**
 - Feasibility Study including staff plan
 - Attendance Area Committee finalized and begins to meet.
- **September**
 - Plans presented to community at two public major public meetings
 - Note: all meetings of committee are open to public
- **October - November**
 - Superintendent's Recommendation
 - Board of Education public work sessions
 - Board of Education public hearing.
 - Final Recommendation

Redistricting Process

- Policy 6010 – School Attendance Areas
- Decision-making
 - Staff technical analysis and recommendations
 - Public advice and comment
 - Superintendent recommendation
 - Board of Education decision
- Attendance Area Committee (AAC)
 - Committee of community members
 - Appointed by the Superintendent
 - Advise and comment during the planning phase regarding redistricting recommendations being developed by staff

Redistricting Scenario Testing

- Staff uses planning polygons
 - Geographic units of 100 or less elementary students
 - Associate projection data to each polygon
- Scenarios are made by changing assignments of polygons
- Reports assess the effects of the scenario based upon considerations in policy

Redistricting Concepts

- ▶ Feed – The percentage of students in the receiving school that come from a sending school of a lower organizational level (15%)
- ▶ Maximum Target Enrollment – 110% of the program capacity of a school facility
- ▶ Minimum Target Enrollment – 90% of the program capacity of a school facility

Redistricting Concepts

- Planning Region – A geographic area of Howard County made up of one or more schools used by the Department of Education for planning purposes.
- School Attendance Area – Geographic area from which a school's students are drawn.

Preconditions for Redistricting

- New school or addition is scheduled to open
- Facility damage or loss
- Enrollment changes above or below minimum.
- Capacity of a school building is altered
- Road network(s) changed
- Unforeseen circumstance

Factors for Considering Redistricting

- Educational welfare of the impacted students in both the sending and receiving schools
- Frequency with which students are redistricted
- Impact on the number of students bused and the distance bused—students travel
- Cost
- The demographic makeup and academic performance of students in both the sending and receiving schools
- Number of students to be redistricted
- Maintenance of feeder patterns
- Changes in a school's program capacity
- Impact on specialized or regional programs
- Functional and operational capacity of school infrastructures
- Building utilization (90–110 percent where possible)

Policy

- ▶ Factors for Consideration:
 - The demographic makeup and academic performance of students in both the sending and receiving schools.
 - Number of students to be redistricted.
 - Maintenance of feeder patterns. For example, avoiding the establishment of feeds less than 15% where possible.
 - Changes in a school's program capacity.

Policy

- ▶ Factors for Consideration:
 - Impact on specialized or regional programs (e.g., special education, career and technology education, ESOL)
 - Functional and operational capacity of school infrastructures (e.g., cafeterias, restrooms and other shared core facilities)
 - Building utilization. For example, maintaining a target enrollment of a building's program capacity of between 90% and 110% where possible

Next Dates

- ▶ **August 13, 2015** – Predevelopment public hearing on FY 17 Capital Budget
- ▶ **September 3, 2015** – Presentation of FY 17 Capital Budget
- ▶ **Redistricting is not scheduled until 2017**

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Redistricting Timeline

- **June – August 2017:** Attendance Area Committee reviews plans, meetings open to public. Schedule will be posted on website
- **September 2017:** Draft redistricting plans presented at regional meetings.
- **October 2017:** Final staff plan presented to BOE.
- **November 2017:** BOE Meetings and vote

Enrollment Projections

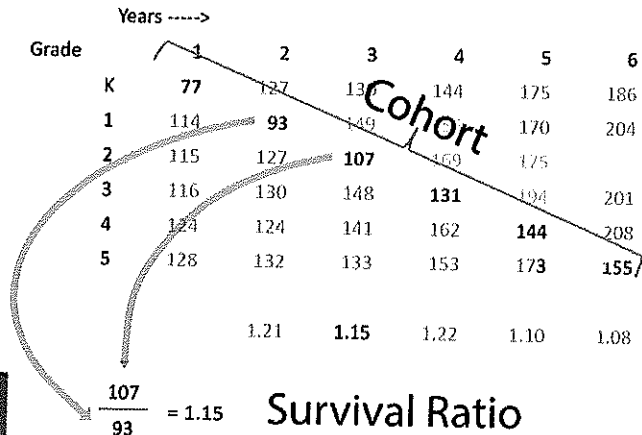
Enrollment Projection



- Projections are developed annually
- Collaboration with state and local agencies for data
- Based upon official September 30 enrollment report to Maryland State Department of Education
- All data is geographically referenced to find trends in each school attending area

Enrollment Projection Method

- Biggest task to effects for "cohorts," or age groups



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Enrollment Projection Method

- Birth history from state
 - Develop birth to kindergarten survival ratio
 - Choose method (1 year or average of 2 – 5 years)
 - Feed K-5 cohort model
- Calculate share of new enrollment from move-in
 - Resale
 - Apartment retail
 - Preschool move in
- New Construction
 - Track yields
 - Apply yields to housing projection

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Enrollment Projection Method



- ▶ Apply housing factors to cohort model
- ▶ Track and apply out-of-district assignment patterns
- ▶ Rising 6th
 - Track share of cohort to each middle school
 - Project forward
 - Feed middle school cohort models
- ▶ Same exercise for each middle school and high school model

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Projection Accuracy



- ▶ **2014 projection**
 - Reported to BOE on February 12, 2015
 - Error rate countywide and at each level no higher than 0.5 percent
 - 85 percent of schools had error rates at or below 5 percent
 - Approximately 25 percent of the schools were within 10 students of actual

40

Enrollment Projection Method

Benchmarking multi- year performance

- ▶ Maryland Department of Planning compiled enrollment projection data for 17 districts in MD in addition to HCPSS
- ▶ Enrollment projections produced in 2009 were analyzed for accuracy/error for five years

	Other Districts	HCPSS	Comment
Mean absolute error	218 –1536 (sd 257–1887)	138–1072	HCPSS error below one standard deviation of group for all five years
Mean absolute percentage error	0.9–4.7% (sd 0.6–3.4%)	0.3–2.1%	

Enrollment Projection Method

Benchmarking multi- year performance

Forecasts made in 2009 by 17 LEAs *

Forecast Year	Mean Absolute Error	Standard Deviation	Mean Absolute Percent Error	Standard Deviation
2010	218	257	0.9%	0.6%
2011	465	588	1.5%	1.0%
2012	860	1,026	2.7%	1.9%
2013	1,132	1,421	3.5%	2.5%
2014	1,536	1,887	4.7%	3.4%

Source: Maryland Department of Planning

*does not include HCPSS

Forecasts made in 2009 by HCPSS

Forecast Year	Mean Absolute Error	Mean Absolute Percent Error
2010	138	0.3%
2011	525	1.1%
2012	495	1.0%
2013	819	1.6%
2014	1,072	2.1%

Source: Maryland Department of Planning

2015 Feasibility Study



Thank you!